



Annual Report of Operations for Year 2016

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

NPDES # for your Facility:

WAG-130012

Facility & Owner Information

Facility Name: Bernie Kai Kai Gobin Salmon Hatchery	
Operator Name (Permittee): Tulalip Tribes	
Address: 10610 Waterworks Road Tulalip, WA 98271	
Email: mcrewson@tulaliptribes-nsn.gov	Phone: (360)716-4626
Owner Name (if different from operator): same	
Email:	Phone:

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ☒ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ☒ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.
Changes include all adaptations to comply with new general permit

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Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs):	29,138 gained, 62,838 total
Pounds of food fed to fish during the maximum month:	7,964

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/Spawned
Chinook	16,411lb	Transferred to Tulalip Bay	May
Yearling	27,694	Transferred to Tulalip Bay	trans Jan
chum	1,776	Transferred to Tulalip Bay	April
subyearling coho	16,957	rearing and not yet released	N/A

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	26,360	2,904	July	7,874	2,024
February	35,000	4.356	August	6,868	2,904
March	13,288	7,964	September	16,564	3,916
April	12,900	5,601	October	19,405	3,960
May	6,177	1,923	November	23,052	2,376
June	6,804	2,024	December	23,052	1,584

Additional Comments:

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Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
920 lbs of spawned coho	10/27/16-12/23/16	Offsite burial pit
3,825 lbs of spawned chum	10/27/16-12/23/16	Offsite burial pit
367.1 lbs of dead eggs (all species)	9/16/16-12/23/16	Offsite burial pit
Additional Comments: Buried in quicklime		

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
Additional Comments: There have never been any mass mortalities at this facility			

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Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

No noncompliance events

Inspections & Repairs for Production & Wastewater Treatment Systems

Date Inspected	Date Repaired	Description of System Inspected and/or Repaired

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Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.
Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Azithromycin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chloramine-T: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chlorine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Draxxin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - injectable
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - medicated feed
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Florfenicol (Aquaflor)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Formalin - 37% formaldehyde: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Herbicide - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hormone - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydrogen Peroxide: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Iodine: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxytetracycline
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Potassium Permanganate: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Romet
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	SLICE (emamectin benzoate)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sodium Chloride - salt
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Vibrio vaccine
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:

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Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Potassium Permanganate		Generic Name:	
Reason for use: Bacterial gill disease			
<input type="checkbox"/> Preventative/Prophylactic <input checked="" type="checkbox"/> As-needed	Total quantity of formulated product per treatment (specify units): 1,764 g	Total quantity of formulated product used in past year (specify units): 8.82 Kg	
Date(s) of treatment: 3/25/16,3/26/16,3/29/16-4/1/16		Total number of treatments in past year: 5	
Maximum daily volume of treated water: 2,590 gal	Treatment concentration (specify units): 2 mg/L	Duration and frequency of treatment(s): 90 min per day	
Method of application:	<input type="checkbox"/> Static Bath <input checked="" type="checkbox"/> Flow-through	<input type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe):	
Location in facility chemical was used (check all that apply):	<input type="checkbox"/> Raceways <input type="checkbox"/> Incubation building	<input checked="" type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin	<input type="checkbox"/> Other (describe):
Where did water treated with this chemical go? (check all that apply):	<input checked="" type="checkbox"/> Discharged w/o treatment <input type="checkbox"/> Settling basin	<input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works	<input type="checkbox"/> Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: Aquaflor		Generic Name: Florfenicol	
Reason for use: Treatment of cold water disease			
<input type="checkbox"/> Preventative/Prophylactic <input checked="" type="checkbox"/> As-needed	Total quantity of formulated product per treatment: 1012 lbs medicated feed	Total quantity of formulated product used in past year (specify units): 1012 lbs medicated feed	
Date(s) of treatment: 4/28/16-5/4/16		Total number of treatments in past year: 1	
Maximum daily volume of treated water: N/A*or 2,304,000 gal	Treatment concentration (specify units): 15 mg/kg of fish	Duration and frequency of treatment(s): Duration= 10 days, Frequency= 1 treat	
Method of application:	<input type="checkbox"/> Static Bath <input type="checkbox"/> Flow-through	<input checked="" type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe):	
Location in facility chemical was used (check all that apply):	<input checked="" type="checkbox"/> Raceways <input type="checkbox"/> Incubation building	<input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin	<input type="checkbox"/> Other (describe):
Where did water treated with this chemical go? (check all that apply):	<input checked="" type="checkbox"/> Discharged w/o treatment <input type="checkbox"/> Settling basin	<input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works	<input type="checkbox"/> Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

*There is no treated water (this is medicated feed in mg drug per kg fish weight)

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Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Formalin		Generic Name:	
Reason for use: Fungus control			
<input type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed		Total quantity of formulated product per treatment (specify units): 2 mg/L	Total quantity of formulated product used in past year (specify units): 8.82 Kg
Date(s) of treatment: 9/21/16-12/28/16 various days			Total number of treatments in past year: 51
Maximum daily volume of treated water: 3,168 gal	Treatment concentration (specify units): 1667 mg/L	Duration and frequency of treatment(s): 15 min per day	
Method of application:		<input type="checkbox"/> Static Bath <input checked="" type="checkbox"/> Flow-through <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe):	
Location in facility chemical was used (check all that apply):	<input type="checkbox"/> Raceways <input checked="" type="checkbox"/> Incubation building	<input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin	<input type="checkbox"/> Other (describe):
Where did water treated with this chemical go? (check all that apply):	<input type="checkbox"/> Discharged w/o treatment <input checked="" type="checkbox"/> Settling basin	<input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works	<input type="checkbox"/> Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			
Brand Name:		Generic Name:	
Reason for use:			
<input type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed		Total quantity of formulated product per treatment:	Total quantity of formulated product used in past year (specify units):
Date(s) of treatment:			Total number of treatments in past year:
Maximum daily volume of treated water:	Treatment concentration (specify units):	Duration and frequency of treatment(s):	
Method of application:		<input type="checkbox"/> Static Bath <input type="checkbox"/> Flow-through <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Other (describe):	
Location in facility chemical was used (check all that apply):	<input type="checkbox"/> Raceways <input type="checkbox"/> Incubation building	<input type="checkbox"/> Ponds <input type="checkbox"/> Off-line settling basin	<input type="checkbox"/> Other (describe):
Where did water treated with this chemical go? (check all that apply):	<input type="checkbox"/> Discharged w/o treatment <input type="checkbox"/> Settling basin	<input type="checkbox"/> Septic System <input type="checkbox"/> Publicly owned treatment works	<input type="checkbox"/> Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)
Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments	
Tank Volume	Liters
Desired Static Bath Treatment Concentration	µg/L
Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Flow-Through Treatments	
Tank Volume	1,030,120 Liters
Calculated Flow Rate	9,804 Liters/Minute
Duration of Treatment	90 Minutes
Desired Flow-Through Treatment Concentration of Product	2000 µg/L
Amount of Product to Add Initially	0 Liters Product
Amount of Product to Add During Treatment	19.6 g/min mL/Minute
Total Volume of Product Needed	1.764 Kg Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 1.17 mg/L Potassium Permanganate + Active Ingredient: 1.17mg/L + Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	6,395,385 gal per day Specify Units
Maximum % of Facility Discharge Treated	58.32% % of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)
Additional Reporting Requirements for Water-Borne Treatments

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- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
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Static Bath Treatments		
Tank Volume		Liters
Desired Static Bath Treatment Concentration		µg/L
Volume of Product Needed		Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution:	
	Active Ingredient:	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day		Specify Units
Maximum % of Facility Discharge Treated		% of Total Discharge

Flow-Through Treatments		
Tank Volume	4430 L* (see calcs provided)	Liters
Calculated Flow Rate	1,103	Liters/Minute
Duration of Treatment	15	Minutes
Desired Flow-Through Treatment Concentration of Product	1,667	µg/L
Amount of Product to Add Initially	0	Liters Product
Amount of Product to Add During Treatment	1,387	mL/Minute
Total Volume of Product Needed	20.81	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: 107.9 mg/L Formalin	
	Active Ingredient: 39.9 mg/L formaldehyde	Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	18,516,133 gal per day	Specify Units
Maximum % of Facility Discharge Treated	8.58%	% of Total Discharge

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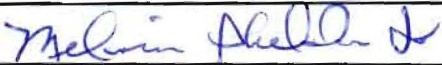
Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.

Changes included all adaptations required to comply with all new permitting

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

	
Printed name of person signing	Title
Melvin Sheldon Jr.	Chaimen
Applicant Signature	Date Signed 1/20/17

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191
Washington Hatchery Annual Report
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140